

## Therapeutics and Pharmacology

### THE TREATMENT OF INTESTINAL PARASITES BY THE DERIVAS DUODENAL LAVAGE METHOD

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DeRivas\* showed the extreme sensitiveness of metazoan and protozoan parasites to relatively slight variations in temperature. A temperature of 45 to 47° C. was found sufficient to kill these parasites within 5 to 10 minutes. Upon this fact the trans-duodenal method of irrigation was based, and, when properly used, may eradicate any protozoan or metazoan parasites inhabiting the small intestine. The same applies to those parasites present in the colon.

The method, described below, was used on a number of patients with excellent results: 8 with *dibothriocephalus latus* infestation; 1 with *Tænia solium* and *Ascaris lumbricoides*; 2 with *Tricocephalus*.

#### METHOD

1. The patient is instructed to take 4 drams of Epsom salts the night before, followed in the morning by an enema of 2 quarts of 2 per cent bicarbonate of soda. No breakfast.

2. Two oz. of equal parts of 30 per cent Epsom salts solution and pure glycerine is inserted through the duodenal tube, care being taken that the tube is in the duodenum.

3. The patient is kept on the right side for one-half an hour after the  $MgSO_4$ -glycerine solution is injected.

4. A solution of 1 per cent bicarbonate of soda at 47° C. is poured gradually through the duodenal tube, until the patient complains of cramps. (About 3 quarts of solution have been used).

5. The patient is placed on an evacuation chamber, expelling the intestinal contents with the parasites.

6. Flushing of the intestine is continued until the intestinal solution comes out clear.

The hot glycerio-magnesium sulphate solution

\* DeRivas, D.: The effect of temperature on protozoan and metazoan parasites, and the application of intra-intestinal thermal therapy in parasitic and other affections of the intestine, *Am. J. Trop. Med.*, 1926, 6: 47.

retracts the hooks of the parasites from the intestine, kills the parasites, and the liquid flushes them through. The method is safe and most reliable if properly used.

### THE MANAGEMENT OF BURNS

The management of severe burns requires careful attention to the prevention of shock, or its treatment if it is present, and scrupulous cleanliness in handling the burned area so as to avoid contaminating the wound.

The severely burned patient must be considered a very sick patient who has a threatening toxæmia, alterations in the blood chemistry, a wound very susceptible to infection, and pathological changes in organs remote from the skin.

The essential principles which must be observed are: control of pain and restlessness, keeping the patient warm, giving fluids and blood transfusions when indicated, determining the loss of blood constituents by frequent blood studies, treating the burned area with as much aseptic precautions as a surgical incision, the prevention of skin contractures by proper and timely splinting, and early grafting of skin when necessary.

In 1937 there were 7,928 deaths from burns, fire, and special accidents in the United States. Of all the deaths resulting from burns 45 per cent occur in children less than 6 years of age and 80 per cent of these should be considered preventable. The most good in the prevention of burns can be accomplished by the family physician, through his natural contact with his patients in their homes.

Research on burns has been largely concentrated on explaining the so-called toxic phase, which appears in from eighteen to twenty-four hours after the accident. Three theories have arisen: the physical, which assumes that there is local leakage of fluids and plasma proteins from the blood, resulting in a too concentrated condition of the blood and circulatory failure; the theory of contamination of the burned area with bacteria, which has not had much support; and the theory that a specific toxin is formed at the wound and that this is absorbed and goes into the circulation, resulting in toxæmia and collapse. The toxic theory has had the most support.—Roy D. McLure, in *J. Am. M. Ass.*, 1939, 113: 1808.

